

47 (Amended). [A] An isolated host cell transformed with a recombinant DNA construct according to claim 29.

CG  
48 (Amended). [A] An isolated host cell transformed with a recombinant DNA construct according to claim 30.

49 (Amended). [A] An isolated host cell transformed with a recombinant DNA construct according to claim 31.

---

REMARKS

Reconsideration and allowance in view of the foregoing amendments and the following remarks are respectfully requested.

As requested by Examiner, the specification has been amended to include sequence identifiers for sequences in Figure 3 of the originally filed application. The sequence identifiers correspond to sequences listed in the herewith submitted Sequence Listing. The specification has been also amended as requested by Examiner to include the description of the plasmids pETA489270C, pETB2360210, and pETB899445P. Entry of amendments to the specification are respectfully requested.

Claims 4-6, 12-14, 18, 21-23, 44, and 47-49 have been amended to more clearly define the claimed invention and to remove objectionable language. Entry of the amended claim is respectfully requested.

Claims 1, 4-6, 18, 21-23, 29-31, 37-39, 43-44, 47-49, 53, 56-58, 62, and 65-67 are pending.

The disclosure stands objected to because the specification fails to reference or identify the SEQ ID NOS. in Figure 3. The specification has been amended to include reference to the Sequence Listing of the sequences disclosed in Figure 3. Examiner indicated in her Action that the CRF copy of the Sequence Listing submitted with the Response dated March 24, 1999 was not received. However, Applicants submit a copy of the postcard receipt indicating receipt of the CRF copy of the Sequence Listing. In any case, in lieu of the missing CRF copy, herewith submitted is a paper and computer readable format of the sequence listing including the sequences in Figure 3 as requested by Examiner. The undersigned hereby certifies that the computer and paper readable copies of the Sequence Listing are the same and do not contain new matter. Entry of the new Sequence Listing and amendments to the specification and withdrawal of the objection is respectfully requested.

The specification stands objected to as failing to provide proper antecedent basis for the recombinant DNA constructs pETA489270C, pETB2360210, and pETB899445P. The specification has been amended to refer to the claimed subject matter. Entry of the amendment to the specification and withdrawal of the objection is respectfully requested.

Claims 1, 4-6, 12-14, 18, 21-23, 29-31, 37-39, 43-44, 47-49, 53, 56-58, 62, and 65-67 stand rejected under 35 U.S.C. §112, first paragraph, as allegedly containing new matter not described in the specification.

Claim 1 as amended in the last response dated March 24, 1999 is drawn to a superantigen toxin with altered ability to bind to multiple subsets of T-cell receptors. Examiner has requested support for this claim amendment with respect to the SEB mutants. Applicants direct Examiner's attention to Example 9, where it is stated on page 35, line 18-20, that injection of rhesus monkeys with the SEB vaccine resulted in "no detectable increase of serum cytokines and no apparent toxicity", both of which are considered to be indicators of the loss of T-cell reactivity.

In addition, Example 4, Fig 2c, shows that site-specific mutations of SEB (and SEA) that alter amino acid residues in contact with T-cell antigen receptors (Y61A) or HLA-DR (Y98A) also attenuate T cell responses to the superantigen toxin. Please see page 49, lines 4-10 of the specification.

Due to the evidence presented in the specification for the claimed SEB toxin with altered ability to bind to multiple subsets of T-cell receptors, the claim as amended is enabled and does not constitute new matter. Withdrawal of the rejection is respectfully requested.

Plasmid pETB899445C assigned ATCC 98445, plasmid pETB2360210 assigned ATCC 98447, and plasmid pETA489270C assigned ATCC 98449 were deposited with the American Type Culture Collection on June 4, 1997. The deposits were made under the Budapest Treaty and assurance is hereby given that all restrictions on the accessibility will be irrevocably removed by the applicant upon the granting of the patent.

Applicants believe that the deposits have been perfected and the claims enabled.

Claims 44 and 47-49 have been amended and are now drawn to an isolated host cell. The amended claims are believed to be enabled and withdrawal of the rejection is respectfully requested.

Claims 4-6, 12-14, 18, 21-23, 43-44, 53, and 62 stand rejected under 35 U.S.C. §112, second paragraph as allegedly indefinite. The claim amendments are believed to render this rejection moot. Withdrawal of the rejection is respectfully requested.

All objections and rejections have been addressed. This application is believed to be in condition for allowance, and Notice to that effect is respectfully solicited.

Respectfully submitted,

By *Charles H. Harris*, Reg. No. 39,441  
Charles H. Harris  
Reg. No. 34,616

U.S. A. MPMC  
504 Scott Street  
Fort Detrick, MD 21702-5012  
ATTN: MCMR -JA (Charles H. Harris-Patent Atty)

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to

Commissioner of Patents and Trademarks  
Washington, D.C. 20231  
on the date of December 14, 1999.

By *Sana A. Pratt*  
Sana A. Pratt  
Reg. No. 39,441